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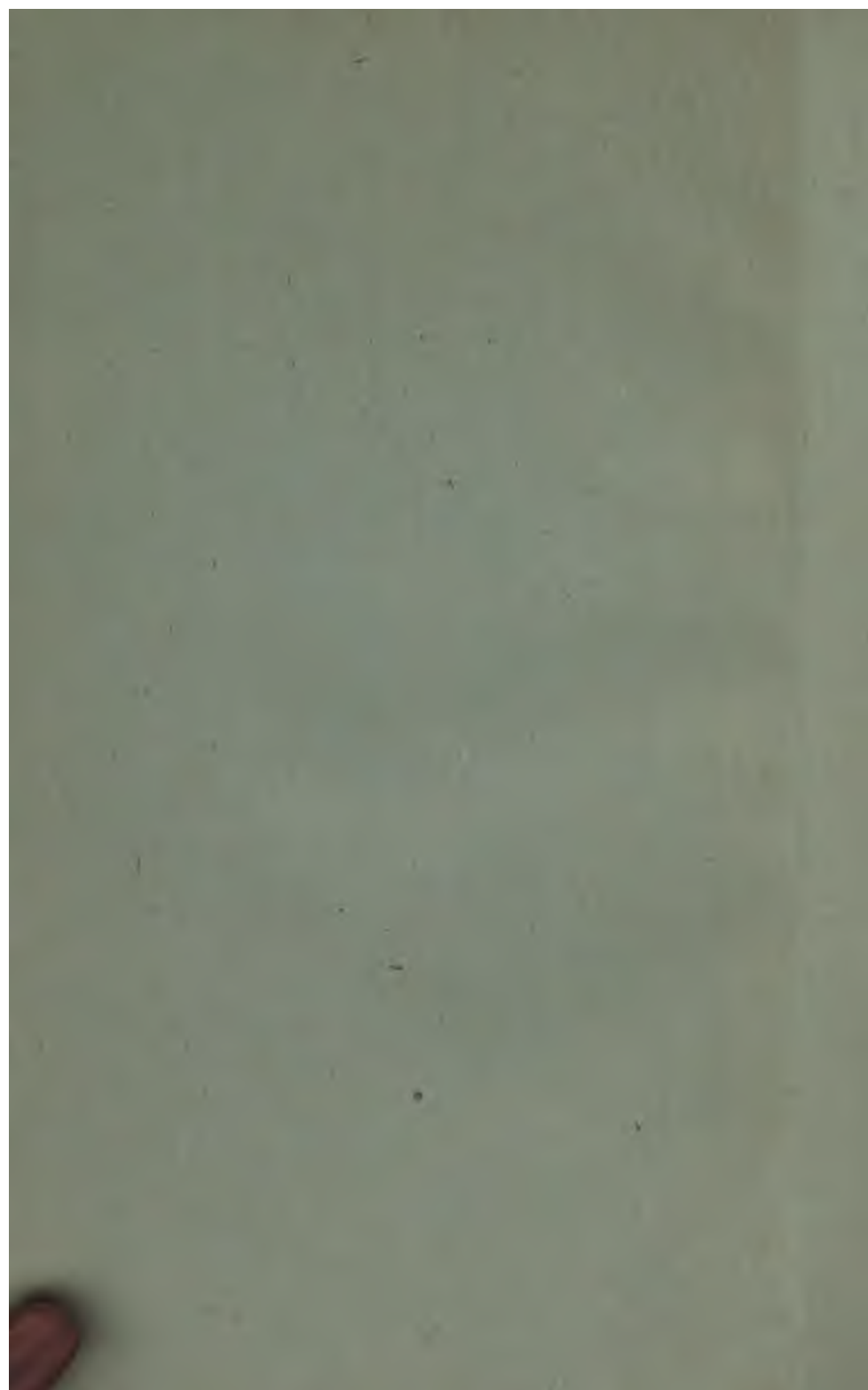
FRANKLIN PAINE MALL

AN APPRECIATION

A. W. MEYER, M.D.
GOVANS, MD.

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Franklin Paine Mall

An Appreciation

A. W. MEYER, M.D.

GOVANS, MD.

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Ave Magister!

Broad, fertile fields which you, alas, so lately tilled, in ever widening waves of ripening grain before us lie. Their many sheaves of harvest now by other hands in lonelier hours, perforce, must garnered be. Less skillful, they anon shall seek, but seek in vain, your sage advice when they shall reap where you have sown and thresh the golden grain. Full many a day when wearying hands in lengthening hours must winnow chaff from wheat, the spirit of your labors here will nerve them in the unfinished task at which, too soon, your hands were stilled. As eagerly in realms unknown for truth we seek, glad strivings which your fruitful presence a joy unending fain had made, shall thus in memory hallowed be.

Steadfast, serene, with high resolve and vision clear, you e'er led on to sun-crowned heights in lands untrod, where Nature yields her secrets infinite. For what you were we offer thanks; for what you wrought our praises flow; for what undone in your short span relentless Fate did bid you leave, we e'er shall rue the day that dwarfed life's plan.

A. W. MEYER

To Franklin Paine Mall

FRANKLIN PAINE MALL

An Appreciation*

A. W. MEYER, M.D.
GOVANS, Md.

As an undergraduate, Mall lived through the old order of things. Although graded courses in medicine had made their advent by the time he became a university student, this change in medical education was only a single step—the first one—in the needed advance. In selecting the University of Michigan he chose well, for it was here that he learned to prepare histologic specimens at a period when laboratory work in histology was yet unthought of in most medical schools. It was this training that enabled him later to become an assistant in histology at Heidelberg. Here, he tells us, he was permitted to study pathologic before normal histology. The exercise of this privilege of choice was valued highly by him, and although well aware of some of the defects of medical education in Germany, he returned from three years' graduate work at Heidelberg and Leipzig, fully imbued with the spirit of freedom in university education. This was due not alone to the wise words of Helmholtz, which apparently greatly impressed him, but especially to this particular aspect of German student life itself. Hence, writing on liberty in medical education in 1899, Mall declared:

In my association with German medical students I have witnessed frequently the value of this point emphasized by Quintilian. . . . We cast out the weak and disgrace them. The mediocre continue along the trodden path, but the strong are retarded. We do wrong when we disgrace the weak, and it is our duty to develop the strong. It is poor logic and begging the question to assert that the German student develops better under the banner of liberty than the American would.

And again in 1905, when writing of His, he declared:

How different is the study of medicine in Europe from that in America! There freedom reigns, and students wander from place to place, being controlled only by a fairly rational system of examination in case they wish to graduate.

Mall remained ever true to this ideal of liberty in education, and cherished it, not for himself alone, but for his students and associates as well. He, indeed, was typically

* The uncredited quotations are from Professor Mall's article on Wilhelm His.

84033

American in his love of liberty, and abominated autocratic methods. Every one was vouchsafed full liberty of action by him; his mind was ever open to new ideas, and always tolerant of dissenting opinion.

During the first three years of the formative period of his career in anatomy, Mall studied at Heidelberg, and worked especially with Ludwig and His at Leipzig. These great teachers he revered throughout his life, and their influence he gladly and frequently acknowledged. Of the two, His became the greater influence, no doubt largely because Mall's interests became more and more anatomic instead of physiologic; for although several of his early papers are on physiologic subjects, he soon devoted his entire energies to anatomy alone.

On returning to America in 1886, he became a fellow, and later an instructor in pathology at the Johns Hopkins University. Here he worked with Welch, to whom, as teacher, he later dedicated one of his monographs. After three years he was called to Clark University as adjunct professor of vertebrate anatomy, and at the end of another three to the professorship of anatomy at the University of Chicago. Here he stayed but a single year, for he was invited to the professorship of anatomy and headship of the department at the newly founded school of medicine of the Johns Hopkins University.

There is abundant evidence that the formative period of Mall's career did not comprise all of the first decade following his graduation in medicine. He not only quickly found himself, but realized well the task before him in the rehabilitation of anatomy. He fully and publicly recognized the great value of the work and the influence on anatomy of Wistar, Wyman and Leidy, but well knew that the old order of things had but begun to change. The real work was still ahead, and in it he had a very large share indeed. "In our many medical colleges," he wrote in 1896, "the most fundamental branch is treated in a very shameful way." And in referring to the old conditions in an article, in 1899, he said:

A quarter of a century ago the medical schools of this country gave an annual course of lectures, which was attended by all students and repeated each year. For this privilege students paid a single fee for which they heard much, saw little and did nothing. There were no requirements for admission and few for graduation.

Although Mall began his career at a time full of promise, in this he was not alone. The time was ripe, but ripe not for him only. Auspicious as the circumstances at the Johns Hopkins University were, they alone could not have effected the change which he wrought; for he not merely accepted conditions as he found them but shaped them in accordance with high ideals and the best traditions of anatomy. He firmly resisted having anatomy subordinated to any other subject, or even made its handmaid. He well knew that anatomy was worth while in itself, and that it

must be cultivated as an independent science in order to prosper. Mall repeatedly emphasized this thought. He regarded "anatomical departments as conservators of anatomical science in which all members of the department are students enlisted in one or more of its subdivisions and its further growth. This department in a university should be truly a university department, and not one that limits its instruction to meet the bare needs of medicine and surgery." Surely nothing could better convert those holding a contrary view than the record of his own department and the traditions he himself established.

Mall also emphasized the unity of anatomy. He realized that histology, gross anatomy, embryology and physical anthropology are one. This was a rather novel idea at the time when he began his career, for although no one would have stultified himself by suggesting that what can be seen in the heavens with the unaided eye belongs in a different field of endeavor from that which can be seen with the telescope, such an incorrect point of view had the force of tradition in anatomy—not in America alone. Indeed, not even the present period of progress has been able wholly to overcome this point of view, and the idea of unity emphasized by Mall so long ago has only recently found realization in some of our prominent universities, both of the East and of the West. For having espoused this conception of anatomy we, especially of the younger generation, owe Mall a debt of gratitude. He, indeed, was in many respects a unique influence in changing for the better the whole state of things in medical education.

In order to overcome the handicap of working on fresh and unavoidably decomposing cadavers, Mall began experiments for the preservation of anatomic material in October, 1893. While waiting for the arrival of human bodies, he used the cadavers of dogs. One of the first results incidental to these experiments was the deletion from the annual announcement of the medical school of the sentence, "The study of human anatomy will be continued with practical work in the dissecting room as soon as cold weather sets in." This statement, which had appeared in five successive annual announcements, was omitted in 1898. In the announcement for the following year it was stated that "the material is carefully embalmed and kept in cold storage vaults."

When speaking of these earlier experiments in 1905, he said:

These experiments proved to be valuable, for we have ever since been able to embalm our subjects well, and in turn the method has spread to many of the medical schools of America.

These methods did, indeed, spread, and so did the conditions under which dissections were done in his laboratories.

But Mall's influence on anatomy was not restricted to the organization of courses, to the teaching of anatomy, to the conditions under which it is taught, or even the establishment of higher standards. Great as the influence of his example in these matters was, it far transcended them and extended to the whole course of development of anatomy in America. He took a leading part in founding various scientific journals, in reorganizing the Association of Anatomists, and in effecting the reorganization of departments of anatomy all over the country. These things not only carried his influence far and wide, but made it fundamental. Nevertheless, it was his attitude toward investigation and his activity in it that made and left the most profound impression. Hence, although a better day had begun to dawn when Mall began his work, and short though his span of life was, he nevertheless lived to see the sun far up from the horizon. That this fact found recognition abroad also must have been very gratifying to him. When writing in *Nature* in 1916, Keith, for example, declared:

Five and twenty years ago anatomists in America were British in methods and in spirit; they were easy going, each man following leisurely his own individual bent. Since that time a remarkable change has taken place; the number of laboratories in which the structure and development of the human body are taught and investigated have increased tenfold; the number of investigators has increased in a still greater ratio; in quantity and quality their anatomical proceedings and journals have come to rival those of any country of Europe.

In effecting this transformation the chief credit must be assigned to one man—Franklin Paine Mall, twenty-three years professor of anatomy at the Johns Hopkins University. He planted in Baltimore the methods and aims which he had acquired when working in the laboratory of the late Professor His of Leipzig. By his personal influence, and example, by pupils and disciples, and by reason of the inherent excellence of the Leipzig traditions, he has succeeded in Germanizing the majority of the dissecting rooms and anatomical laboratories throughout the length and breadth of North America.

Mall repeatedly acknowledged his indebtedness to His, which is referred to in the foregoing quotation from Keith. When speaking of his investigations on Embryo 2, for example, he wrote:

In 1890, this specimen was offered to my teacher, Professor His, who, however, refused to accept the gift but returned it, together with several of his own. "These," he added, "will make a nucleus for your own collection. It will give me pleasure to see publications coming from a new source."

Seldom, indeed, can the hope of a teacher have found fuller realization! The unique collection, now the property of the Department of Embryology of the Carnegie Institution of Washington, long passed the fondest hopes, if not the dreams, of Wilhelm His. The rapid increase of this collection within the last few years through the generous cooperation of numerous physicians, as well as its greater utilization, made pos-

sible by the wise support received from the Carnegie Institution, gave Mall the greatest satisfaction. In it he saw the possible fulfilment of many a cherished plan, and to it he gave his best endeavors. Let us hope that continued support of this department will enable others to carry to full fruition the wise plans of its founder and first director, for as he wrote of His, so it also may be said of him: "He left a great legacy, no small part of which consists of wise plans for future work."

Even if it were within the power of my poor words to do so, it is not my purpose to fully portray the life work of my former teacher, colleague and friend. Nor did he love many words. Silence was often golden to Mall, for he was a doer, not a preacher. He lived and taught by example, and his unique personality, quiet demeanor and simple unobtrusive life had a very pervading influence. Neither his time nor attention were for the *many* but for the *few* whom he sought to interest in his chosen field. All he had to give was theirs, and to them his loyalty and devotion were unfailing.

He always was alert for a new recruit, and not only possessed rare intuition in finding him, but soon won him over and spurred him on to his best endeavors; not by making alluring promises, but by interesting himself in his work and providing ideal conditions. A feigned interest never misled him, and he was impatient of the time server. "In America," he wrote, "we frequently find recent graduates who tell us they would follow an academic career if their future were assured as far as salary is concerned. Little do they realize that this attitude of mind should exclude them absolutely from such a career."

He tested all aspirants by "freedom and research," and always stood with his disciples on "the common field of nature." Students, assistants and associates "always were given the greatest freedom, for it was against his nature to enslave them to the least degree." With students or disciples, "swim or sink" was his precept, and he aided the scientific toddler only to start him off. Once started, the beginner was left largely to his own devices, for "he desired that the pupil should have full freedom to work out his own solution." If the initiative of the latter carried him forward to a success, no matter how modest, Mall's pleasure always exceeded that of the toddler himself.

Some happy day, when the history of anatomy in America will be written, a very large place will be assigned to Mall. His influence was wide and deep, not alone because of what he himself did, but also because of what his example inspired others to do. As he said of His, so also it was true of him, that "his greatest joy was to further the cause of his chosen science." Surely, every one rejoices in such a life as this, and finds comfort in the words of Ulysses, "Though much has been taken, much abides."



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